

**CPC****COOPERATIVE PATENT CLASSIFICATION****B66C**

**CRANES; LOAD-ENGAGING ELEMENTS OR DEVICES FOR CRANES, CAPSTANS, WINCHES, OR TACKLES** ({ specially adapted for lifting invalids [A61G 7/10](#);} rope, cable, or chain winding mechanisms, braking or detent devices therefor B66D; specially adapted for nuclear reactors G21)

**WARNING**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[B66C 23/61](#) covered by [B66C 23/60](#)  
[B66C 23/683](#) covered by [B66C 23/68](#)  
[B66C 23/687](#) covered by [B66C 23/701](#)  
[B66C 23/69](#) covered by [B66C 23/701](#)  
[B66C 23/693](#) covered by [B66C 23/705](#)  
[B66C 23/697](#) covered by [B66C 23/707](#)

**Load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith**

**NOTE**

In groups [B66C 1/00](#) and [B66C 3/00](#) the term "cranes" also covers capstans, winches, or tackles

**B66C 1/00**

**Load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith for transmitting lifting forces to articles or groups of articles** (fastening to cables or ropes [F16G 11/00](#))

- B66C 1/02 . by suction means {(suction cups for attaching purposes [F16B 47/00](#))}
- B66C 1/0206 .. { for handling bulk or bags}
- B66C 1/0212 .. { Circular shape}
- B66C 1/0218 .. { Safety measures e.g. sensors, duplicate functions}
- B66C 1/0225 .. { Hand held}
- B66C 1/0231 .. { Special lip configurations}
- B66C 1/0237 .. { Multiple lifting units; More than one suction area}
- B66C 1/0243 ... { Separate cups}
- B66C 1/025 ... { Divided cups}
- B66C 1/0256 .. { Operating and control devices}
- B66C 1/0262 ... { for rotation}
- B66C 1/0268 ... { Venturi effect}
- B66C 1/0275 ... { actuated by lifting action}
- B66C 1/0281 .. { Rectangular or square shape}
- B66C 1/0287 .. { Other shapes, e.g. triangular or oval}

- B66C 1/0293 .. { Single lifting units; Only one suction cup}
- B66C 1/04 . by magnetic means
- B66C 1/06 .. electromagnetic
- B66C 1/08 ... Circuits therefor (for electromagnets in general [H01F 7/18](#))
- B66C 1/10 . by mechanical means
- B66C 1/101 .. {for containers ([B66C 1/223](#) and [B66C 1/663](#) take precedence)}
- B66C 1/102 ... { for two or more containers end to end}
- B66C 1/104 ... { for two or more containers side by side}
- B66C 1/105 .. {Lifting beam permitting to depose a load through an opening}
- B66C 1/107 .. { for lifting engines}
- B66C 1/108 .. { for lifting parts of wind turbines}
- B66C 1/12 .. Slings comprising chains, wires, ropes, or bands; Nets (article side grippers suspended by ropes or chains from crane hooks [B66C 1/42](#))
- B66C 1/122 ... {Sling or load protectors}
- B66C 1/125 ... {Chain-type slings (chains in general [F16G](#))}
- B66C 1/127 ... {Nets}
- B66C 1/14 ... Slings with hooks
- B66C 1/16 ... Slings with load-engaging platforms or frameworks
- B66C 1/18 ... Band-type slings
- B66C 1/20 ... specially adapted for handling vehicles
- B66C 1/22 .. Rigid members, e.g. L-shaped members, with parts engaging the under surface of the loads; Crane hooks
- B66C 1/223 ... {for containers}
- B66C 1/226 ... {for flexible intermediate bulk containers (FIBC)}
- B66C 1/24 ... Single members engaging the loads from one side only
- B66C 1/26 .... with means for releasing the loads
- B66C 1/28 ... Duplicate, e.g. pivoted, members engaging the loads from two sides
- B66C 1/30 .... and also arranged to grip the sides of the loads
- B66C 1/32 ..... of piled or stacked articles
- B66C 1/34 ... Crane hooks
- B66C 1/36 .... with means, e.g. spring-biased detents, for preventing inadvertent disengagement of loads
- B66C 1/38 .... adapted for automatic disengagement from loads on release of cable tensions (for parachutes [B64D](#))
- B66C 1/40 .... formed or fitted with load measuring or indicating devices
- B66C 1/42 .. Gripping members engaging only the external or internal surfaces of the articles (for handling or stripping castings or ingots during manufacture [B22D 29/00](#))
- B66C 1/422 ... {actuated by lifting force ([B66C 1/44](#), [B66C 1/58](#) take precedence)}
- B66C 1/425 ... {motor actuated ([B66C 1/44](#), [B66C 1/58](#) take precedence)}
- B66C 1/427 .... {by hydraulic or pneumatic motors}
- B66C 1/44 ... and applying frictional forces
- B66C 1/442 .... {actuated by lifting force}

- B66C 1/445 . . . . {motor actuated}
- B66C 1/447 . . . . . {by hydraulic or pneumatic motors}
- B66C 1/46 . . . . by inflatable elements
- B66C 1/48 . . . . to vertical edge portions of sheets, tubes, or like thin or thin-walled articles  
(internally-expanding grippers [B66C 1/54](#))
- B66C 1/485 . . . . . {Coil lifting devices}
- B66C 1/54 . . . . Internally-expanding grippers for handling hollow articles ([B66C 1/46](#) takes precedence)
- B66C 1/56 . . . . . for handling tubes
- B66C 1/58 . . . . and deforming the articles, e.g. by using gripping members such as tongs or grapples
- B66C 1/585 . . . . {Log grapples}
- B66C 1/59 . . . . Tongs for sacks
- B66C 1/62 . . . . comprising article-engaging members of a shape complementary to that of the articles to be handled
- B66C 1/625 . . . . {for gripping drums or barrels}
- B66C 1/64 . . . . for T- or I-section beams or girders
- B66C 1/66 . . . . for engaging holes, recesses, or abutments on articles specially provided for facilitating handling thereof
- B66C 1/663 . . . . {for containers (fastening of containers on vehicles **B60P 7/06B**, **B60P 7/06B2**)}
- B66C 1/666 . . . . {for connection to anchor inserts embedded in concrete structures}
- B66C 1/68 . . . . mounted on, or guided by, jibs ([jibs B66C 23/64](#))
  
- B66C 3/00** **Load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith and intended primarily for transmitting lifting forces to loose materials; Grabs (buckets and other containers [B65D](#), e.g. pallets [B65D 19/00](#); dredges equipped with grabs [E02F](#))**
  
- B66C 3/005 . . . . {Grab supports, e.g. articulations; Oscillation dampers; Orientation ([B66C 3/16](#) takes precedence)}
- B66C 3/02 . . . . Bucket grabs
- B66C 3/04 . . . . Tine grabs
- B66C 3/06 . . . . Grabs actuated by a single rope or chain
- B66C 3/08 . . . . and having tipping rings
- B66C 3/10 . . . . and having buckets opening automatically upon the grab being lowered on to the dump of material
- B66C 3/105 . . . . {Devices for control}
- B66C 3/12 . . . . Grabs actuated by two or more ropes
- B66C 3/125 . . . . {Devices for control}
- B66C 3/14 . . . . Grabs opened or closed by driving motors thereon
- B66C 3/16 . . . . by fluid motors

- B66C 3/18 . . . by electric motors
- B66C 3/20 . . . mounted on, or guided by, jibs ([jibs B66C 23/64](#))

### Other common features; Details

#### **B66C 5/00 Base supporting structure with legs**

- B66C 5/02 . . . Fixed or travelling bridges or gantries, i.e. elongated structures of inverted L or of inverted U shape{or tripods}
- B66C 5/025 . . . {Tripods}
- B66C 5/04 . . . with runways or tracks supported for movements relative to bridge or gantry
- B66C 5/06 . . . with runways or tracks supported for lateral swinging movements
- B66C 5/08 . . . with vertically invlinable runways or tracks
- B66C 5/10 . . . Portals, i.e. essentially circular or square platforms with three or more legs specially adapted for supporting slewing jib cranes

#### **B66C 6/00 Girders, or track-supporting structures, specially adapted for cranes ([base supporting structures with legs B66C 5/00](#); [girders in general E04C 3/02](#))**

#### **B66C 7/00 Runways, tracks or trackways for trolleys or cranes**

- B66C 7/02 . . . for underhung trolleys or cranes
- B66C 7/04 . . . Trackway suspension
- B66C 7/06 . . . . . on supports constructed for easy erection, e.g. transportable
- B66C 7/08 . . . Constructional features of runway rails or rail mountings ([of general application E01B](#))
- B66C 7/10 . . . Arrangements or devices for extending runways or tracks
- B66C 7/12 . . . Devices for changing direction of travel or for transferring from one runway to another; Crossings; Combinations of tracks of different gauges ([transfer devices of general application E01B](#))
- B66C 7/14 . . . Runway interlocking devices
- B66C 7/16 . . . Devices specially adapted for limiting trolley or crane travel; Arrangements of buffer-stops ([buffer-stops of interest apart from this application B61K 7/18](#); [limit-switch arrangements, limit circuits B66D 1/56](#))

#### **B66C 9/00 Travelling gear incorporated in or fitted to trolleys or cranes ([for floor-to-roof stacking devices B66F 9/072](#)); [for dredgers E02F](#))**

- B66C 9/02 . . . for underhung trolleys or cranes
- B66C 9/04 . . . to facilitate negotiation of curves

- B66C 9/06 . for more than one rail gauge
- B66C 9/08 . Runners; Runner bearings ([wheels for railbound vehicles B60B](#))
- B66C 9/10 . Undercarriages or bogies, e.g. end carriages, end bogies
- B66C 9/12 . . with load-distributing means for equalising wheel pressure
- B66C 9/14 . Trolley or crane travel drives ([rope, cable, or chain drives for loads or trolleys B66C 11/16](#); [control B66C 13/18](#))
- B66C 9/16 . with means for maintaining alignment between wheels and track
- B66C 9/18 . with means for locking trolleys or cranes to runways or tracks to prevent inadvertent movements
  
- B66C 11/00** **Trolleys or crabs, e.g. operating above runways** ([runways, tracks or trackways therefor B66C 7/00](#); [winch mechanisms B66D](#))
  
- B66C 11/02 . with operating gear or operator`s cabin suspended, or laterally offset, from runway or track
- B66C 11/04 . . Underhung trolleys ([power-operated hoists with driving motor and drum or barrel contained in a common housing B66D 3/20](#))
- B66C 11/06 . . . running on monorails ([overhead railway systems B61B](#))
- B66C 11/08 . with turn-tables
- B66C 11/10 . . equipped with jibs ([jib-cranes B66C 23/00](#))
- B66C 11/12 . having hoisting gear adapted to special load-engaging elements and not otherwise provided for
- B66C 11/14 . adapted to operate on crane or bridge structure of particular configuration, e.g. on reinforced concrete girders of rectangular cross-section
- B66C 11/16 . Rope, cable, or chain drives for trolleys; Combinations of such drives with hoisting gear
- B66C 11/18 . . comprising endless ropes or cables
- B66C 11/20 . . Arrangements, e.g. comprising differential gears, enabling simultaneous or selective operation of travelling and hoisting gear; Arrangements using the same rope or cable for both travelling and hoisting, e.g. in Temperley cranes ([power transmissions between driving motors and winch drums B66D 1/14](#))
- B66C 11/22 . . actuated pneumatically or hydraulically
- B66C 11/24 . . with means for locating or sustaining the loads or trolleys in predetermined positions; Hay hoists
- B66C 11/26 . . . Abutments; Stop blocks; End stops
  
- B66C 13/00** **Other constructional features or details**
  
- B66C 13/005 . { [Cranes carrying advertisements or the like](#)}

- B66C 13/02 . Devices for facilitating retrieval of floating objects, e.g. for recovering crafts from water ([handling live-boats B63B](#); [salvaging, or hauling-out on slipways, waterborne vessels B63C](#); [winding mechanism controls B66D 1/52](#))
- B66C 13/04 . Auxiliary devices for controlling movements of suspended loads, or preventing cable slack
- B66C 13/06 .. for minimising or preventing longitudinal or transverse swinging of loads
- B66C 13/063 ... {electrical}
- B66C 13/066 ... { for minimising vibration of a boom}
- B66C 13/08 .. for depositing loads in desired attitudes or positions
- B66C 13/085 ... {electrical}
- B66C 13/10 .. for preventing cable slack ([control devices for rope, cable, or chain winding mechanisms, e.g. for controlling tensions, B66D 1/40](#))
- B66C 13/105 ... {electrical}
- B66C 13/12 . Arrangements of means for transmitting pneumatic, hydraulic, or electric power to movable parts of devices
- B66C 13/14 .. to load-engaging elements or motors associated therewith
- B66C 13/16 . Applications of indicating, registering, or weighing devices ([in crane hooks B66C 1/40](#); [in safety gear B66C 15/00](#); [weighing-apparatus G01G](#); [remote indicating in general G08](#))
- B66C 13/18 . Control systems or devices ([exclusively for rope, cable, or chain winding mechanisms B66D 1/40](#))
- B66C 13/20 .. for non-electric drives ([transmitting control pulses B66C 13/40](#))
- B66C 13/22 .. for electric drives ([transmitting control pulses B66C 13/40](#); [systems or devices of general application H02P](#))
- B66C 13/23 ... Circuits for controlling the lowering of the load
- B66C 13/24 .... by dc motors
- B66C 13/26 .... by ac motors
- B66C 13/28 ..... utilising regenerative braking for controlling descent of heavy loads and having means for preventing rotation of motor in the hoisting direction when load is released
- B66C 13/30 ... Circuits for braking, traversing, or slewing motors
- B66C 13/32 ... for operating grab bucket hoists by means of one or more electric motors used both for hoisting and lowering the loads and for opening and closing the bucket jaws ([other aspects or rope, cable, or chain winding mechanisms specially adapted for actuating grab buckets B66D 1/62](#))
- B66C 13/34 .... through differential or planetary gearing
- B66C 13/36 .... Single-motor-drive control systems
- B66C 13/38 .... Systems controlling independent motors
- B66C 13/40 .. Applications of devices for transmitting control pulses; Applications of remote control devices ([control in general G05](#))
- B66C 13/42 ... Hydraulic transmitters
- B66C 13/44 ... Electrical transmitters
- B66C 13/46 .. Position indicators for suspended loads or for crane elements

- B66C 13/48 .. Automatic control of crane drives for producing a single or repeated working cycle; Programme control
- B66C 13/50 .. Applications of limit circuits or of limit-switch arrangements (for winding mechanisms [B66D 1/56](#))
- B66C 13/52 . Details of compartments for driving engines or motors or of operator`s stands or cabins
- B66C 13/54 .. Operator`s stands or cabins
- B66C 13/56 ... Arrangements of handles or pedals
  
- B66C 15/00** **Safety gear** (for rope, cable, or chain winding mechanisms [B66D 1/54](#))
  
- B66C 15/02 . for retaining load-engaging elements in the event of rope or cable breakage
- B66C 15/04 . for preventing collisions, e.g. between cranes or trolleys operating on the same track
- B66C 15/045 .. {electrical}
- B66C 15/06 . Arrangements or use of warning devices
- B66C 15/065 .. {electrical}
  
- Kinds or types of cranes** (adaptations of girders or of track-supporting structures [B66C 6/00](#))
  
- B66C 17/00** **Overhead travelling cranes comprising one or more substantially horizontal girders the ends of which are directly supported by wheels or rollers running on tracks carried by spaced supports**
  
- B66C 17/04 . with lifting beams, e.g. slewable beams, carrying load-engaging elements, e.g. magnets, hooks (constructions of load-engaging elements [B66C 1/00](#), [B66C 3/00](#))
- B66C 17/06 . specially adapted for particular purposes, e.g. in foundries, forges; combined with auxiliary apparatus serving particular purposes ([B66C 17/04](#) takes precedence)
- B66C 17/08 .. for charging treatment chambers, e.g. furnaces, kilns, ovens (charging furnaces in general [F27D 3/00](#))
- B66C 17/10 .. for transporting ladles
- B66C 17/12 .. for handling workpieces, e.g. ingots, which require to be supported temporarily within, or withdrawn from, a treatment chamber, e.g. tong cranes, soaking-pit cranes, stripper cranes (for manipulating ingots during forging [B66C 17/18](#); grippers for handling or stripping casting or ingots during manufacture [B22D 29/00](#))
- B66C 17/14 ... Tong cranes with means for moving article-pushers relative to the tongs
- B66C 17/16 ... Tong cranes with means for turning the tongs about a vertical axis
- B66C 17/18 .. for manipulating workpieces during forging operations (work-pieces manipulators in forging machines [B21J 13/10](#))
- B66C 17/20 .. for hoisting or lowering heavy load carriers, e.g. freight containers, railway wagons
- B66C 17/22 .. for hoisting or lowering locomotives
- B66C 17/24 .. for building ships on slipways
- B66C 17/26 .. combined with auxiliary apparatus, e.g. log saws, pushers for unloading vehicles, means for shunting railway vehicles

- B66C 19/00**      **Cranes comprising trolleys or crabs running on fixed or movable bridges or gantries** ([B66C 17/00](#) takes precedence; base supporting structures with legs [B66C 5/00](#); jib cranes [B66C 23/00](#))
- [B66C 19/002](#)      . {Container cranes ([B66C 19/007](#) takes precedence)}
- [B66C 19/005](#)      . { Straddle carriers ([B66C 19/007](#) takes precedence)}
- [B66C 19/007](#)      . {for containers}
- [B66C 19/02](#)      . collapsible {([B66C 19/002](#), [B66C 19/005](#) takes precedence)}
- B66C 21/00**      **Cable cranes, i.e. comprising hoisting devices running on aerial cable-ways** (rope or cable drives for trolleys, combinations of such drives with hoisting gear [B66C 11/16](#); railway systems [B61B](#); rope or cable winding mechanisms [B66D 1/00](#))
- [B66C 21/02](#)      . with cable-ways supported on framework swingably connected to groundengaging elements
- [B66C 21/04](#)      . with cable-ways supported at one end or both ends on bodily movable framework, e.g. framework mounted on rail track
- [B66C 21/06](#)      . . with one end supported on a framework movable in a curved, e.g. circular, path and the other end by a column rotatable around a vertical axis
- [B66C 21/08](#)      . Sag carriers or rope trolleys, suspended or not, e.g. fixed but offering clearance for travelling gear
- [B66C 21/10](#)      . . travelling
- B66C 23/00**      **Cranes comprising essentially a beam, boom, or triangular structure acting as a cantilever and mounted for translatory or swinging movements in vertical or horizontal planes or a combination of such movements, e.g. jib-cranes, derricks, tower cranes** (base supporting structures with legs [B65C 5/00](#))
- [B66C 23/005](#)      . {with balanced jib, e.g. pantograph arrangement, the jib being moved manually}
- [B66C 23/02](#)      . with non-adjustable and non-inclinable jibs mounted solely for slewing movements
- [B66C 23/022](#)      . . { Pivot axis common with column}
- [B66C 23/025](#)      . . { with particular mounting for base of column}
- [B66C 23/027](#)      . . { Pivot axis separated from column axis}
- [B66C 23/04](#)      . with jibs the effective length of which is variable in operation, e.g. longitudinally displaceable, extensible
- [B66C 23/06](#)      . with jibs mounted for jibbing or luffing movements
- [B66C 23/08](#)      . . and adapted to move the loads in predetermined paths
- [B66C 23/10](#)      . . . the paths being substantially horizontal; Level-luffing jib-cranes
- [B66C 23/12](#)      . . . . with means for automatically varying the effective length of the hoisting rope or cable

- B66C 23/14 . . . . with means, e.g. pantograph arrangements, for varying jib configuration
- B66C 23/16 . with jibs supported by columns, e.g. towers having their lower end mounted for slewing movements
- B66C 23/163 . . { where only part of the column rotates, i.e. at least the bottom part is fixed}
- B66C 23/166 . . { Simple cranes with jibs which may be fixed or can slew or luff}
- B66C 23/18 . specially adapted for use in particular purposes
- B66C 23/185 . . { for use erecting wind turbines ([B66C 23/207](#) takes precedence)}
- B66C 23/20 . . with supporting couples provided by walls of buildings or like structures
- B66C 23/201 . . . { with supporting couples provided from above, e.g. by ceilings of buildings}
- B66C 23/202 . . . { with supporting couples provided from below, e.g. by floors of buildings}
- B66C 23/203 . . . { with supporting couples provided by posts, e.g. scaffolding, trees or masts}
- B66C 23/205 . . . { for use on top of roofs}
- B66C 23/206 . . . { with supporting couples provided by iso containers}
- B66C 23/207 . . . { with supporting couples provided by wind turbines}
- B66C 23/208 . . . { with supporting couples provided from the side, e.g. by walls of buildings}
- B66C 23/22 . . . Window cranes, i.e. adapted to be supported in window openings
- B66C 23/24 . . . Mobile wall cranes
- B66C 23/26 . . for use on building sites; constructed, e.g. with separable parts, to facilitate rapid assembly or dismantling, for operation at successively higher levels, for transport by road or rail ([with supporting couples provided by walls or building \[B66C 23/20\]\(#\); mounted on vehicles \[B66C 23/36\]\(#\); jib constructions \[B66C 23/64\]\(#\)](#))
- B66C 23/28 . . . constructed to operate at successively higher levels
- B66C 23/283 . . . . {with frameworks composed of assembled elements}
- B66C 23/286 . . . . . {with locking devices}
- B66C 23/30 . . . . with frameworks composed of telescopic elements
- B66C 23/305 . . . . . {with locking devices}
- B66C 23/32 . . . . Self-hoisting cranes
- B66C 23/34 . . . Self-erecting cranes, i.e. with hoisting gear adapted for crane erection purpose
- B66C 23/342 . . . . {with telescopic elements}
- B66C 23/344 . . . . {adapted for transport purposes}
- B66C 23/346 . . . . {with locking devices}
- B66C 23/348 . . . . {the erection being operated by jacks}
- B66C 23/36 . . mounted on road or rail vehicles; Manually-movable jib-cranes for use in workshops; Floating cranes ([with pneumatic or hydraulic motors \[B66C 23/54\]\(#\); vehicle or ship aspects \[B60\]\(#\) to \[B63\]\(#\)](#))
- B66C 23/365 . . . { dismantable into smaller units for transport purposes}
- B66C 23/38 . . . with separate prime movers for crane and vehicle
- B66C 23/40 . . . with a single prime mover for both crane and vehicle
- B66C 23/42 . . . with jibs of adjustable configuration, e.g. foldable
- B66C 23/44 . . . Jib-cranes adapted for attachment to standard vehicles, e.g. agricultural tractors
- B66C 23/46 . . . Mobile jib-cranes with non-sleuable jibs
- B66C 23/48 . . . Manually-movable jib cranes for use in workshops

- B66C 23/485 . . . . { for lifting and moving engines, e.g. car or aero engines or parts thereof}
- B66C 23/50 . . . mounted on railway vehicles, e.g. breakdown cranes
- B66C 23/52 . . . Floating cranes ([floating dredgers E02F](#))
- B66C 23/525 . . . . {Double slewing cranes on ships}
- B66C 23/53 . . . . including counterweight or means to compensate for list, trim, or skew of the vessel or platform (counterweights or supports for balancing lifting couples [B66C 23/72](#); equipment to decrease unwanted vessel movements [B63B 39/00](#))
  
- B66C 23/54 . with pneumatic or hydraulic motors, e.g. for actuating jib-cranes on tractors
- B66C 23/545 . . { with arrangements for avoiding dead centre problems during cylinder motion}
- B66C 23/56 . . of the reciprocating type
  
- B66C 23/58 . arranged to carry out a desired sequence of operations automatically, e.g. hoisting followed by luffing and slewing
- B66C 23/585 . . {electrical}
  
- B66C 23/60 . Derricks
- B66C 23/605 . . {employing ships` masts}([B66C 23/525](#) takes precedence)
  
- B66C 23/62 . Constructional features or details ([of dredgers E02F](#))
- B66C 23/64 . . Jibs
- B66C 23/66 . . . Outer or upper end constructions
- B66C 23/68 . . . foldable or otherwise adjustable in configuration
- B66C 23/70 . . . constructed of sections adapted to be assembled to form jibs or various lengths
- B66C 23/701 . . . . {telescopic}
- B66C 23/702 . . . . . {with a jib extension boom}
- B66C 23/703 . . . . . {telescoped by flexible elements, e.g. cables, chains or bands}
- B66C 23/705 . . . . . {telescoped by hydraulic jacks}
- B66C 23/706 . . . . . {telescoped by other means}
- B66C 23/707 . . . . . {guiding devices for telescopic jibs}
- B66C 23/708 . . . . . {locking devices for telescopic jibs}
- B66C 23/72 . . Counterweights or supports for balancing lifting couples
- B66C 23/74 . . . separate from jib
- B66C 23/76 . . . . and movable to take account of variations of load or of variations of length of jib
- B66C 23/78 . . . Supports, e.g. outriggers, for mobile cranes
- B66C 23/80 . . . . hydraulically actuated
- B66C 23/82 . . Luffing gear
- B66C 23/821 . . . { Bracing equipment for booms (Abspannstütze)}
- B66C 23/823 . . . . { Bracing equipment acting in vertical direction}
- B66C 23/825 . . . . { Bracing equipment acting in horizontal direction}
- B66C 23/826 . . . . { Bracing equipment acting at an inclined angle to vertical and horizontal directions}
- B66C 23/828 . . . . . { where the angle is adjustable}

- B66C 23/84 .. Slewing gear ([anti-friction bearings F16C](#))
- B66C 23/86 ... hydraulically actuated
  
- B66C 23/88 . Safety gear ([for cranes in general B66C 15/00](#); [for rope, cable, or chain winding mechanisms B66D 1/54](#))
- B66C 23/90 .. Devices for indicating or limiting lifting moment
- B66C 23/905 ... {electrical}
- B66C 23/92 .. Snubbers or dashpots for preventing backwards swinging of jibs, e.g. in the event of cable or tackle breakage
- B66C 23/94 .. for limiting slewing movements
  
- B66C 25/00**      **Cranes not provided for in groups [B66C 17/00](#) to [B66C 23/00](#)**
  
  
- B66C 2700/00**      **Cranes**
  
- B66C 2700/01 . General aspects of mobile cranes, overhead travelling cranes, gantry cranes, loading bridges, cranes for building ships on slipways, cranes for foundries or cranes for public works
- B66C 2700/011 .. Cable cranes
- B66C 2700/012 .. Trolleys or runways
- B66C 2700/014 ... Devices for trolleys running on monorails
- B66C 2700/015 .... Arrangements which are easily displaceable or dismountable
- B66C 2700/017 ... Installations characterised by their destination or by the load-engaging element for as far as the trolley is essential
- B66C 2700/018 ... Construction details related to the trolley movement
  
- B66C 2700/03 . Cranes with arms or jibs; Multiple cranes
- B66C 2700/0307 .. Cranes in which it is essential that the load is moving horizontally during the luffing movement of the arm or jib
- B66C 2700/0314 ... in combination with the movement of the counterweight
- B66C 2700/0321 .. Travelling cranes
- B66C 2700/0328 ... Cranes on rails or on rail vehicles
- B66C 2700/0335 .... with a slewing arm
- B66C 2700/0342 ..... on a turntable
- B66C 2700/035 .... Construction details related to the travelling, to the supporting of the crane or to the blocking of the axles; Outriggers; Coupling of the travelling mechanism to the crane mechanism
  
- B66C 2700/0357 ... Cranes on road or off-road vehicles, on trailers or towed vehicles; Cranes on wheels or crane-trucks
- B66C 2700/0364 .... with a slewing arm
- B66C 2700/0371 ..... on a turntable
- B66C 2700/0378 .... Construction details related to the travelling, to the supporting of the crane or to the blocking of the axles; Outriggers; Coupling of the travelling mechanism to the crane mechanism

- B66C 2700/0385 .. Cranes with trolleys movable along adjustable or slewable arms
- B66C 2700/0392 .. Movement of the crane arm; Coupling of the crane arm with the counterweights; Safety devices for the movement of the arm
  
- B66C 2700/06 . Cranes in which the lifting movement is done with a hydraulically controlled plunger
- B66C 2700/062 .. mounted on motor vehicles
- B66C 2700/065 ... with a slewable jib
- B66C 2700/067 .... on a turntable
  
- B66C 2700/08 . Electrical assemblies or electrical control devices for cranes, winches, capstans or electrical hoists
- B66C 2700/081 .. with ac motors
- B66C 2700/082 .. Control of the secondary movements, e.g. travelling, slewing, luffing of the jib, changing of the range
- B66C 2700/084 .. Protection measures
- B66C 2700/085 .. Control actuators
- B66C 2700/087 .. Electrical assemblies or electrical control devices for electrically actuated grabs
- B66C 2700/088 .. Remote control of electric cranes